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EXAMINER	
PAPAPIETRO, JACQUELINE M	
ART UNIT	**PAPER NUMBER**
3739	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/613,794	VANNEY, GUY	
	Examiner	Art Unit	
	Jacqueline Papapietro	3739	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 May 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *02 July 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Kordis (PN 5499981).

Regarding claim 1, Kordis discloses an ablation catheter (10) comprising: a tubular body (98) having a distal end region (Fig 38), the tubular body defining at least a partial curve along the distal end region of the tubular body (Fig 38), the partial curve being adapted to change curvature (column 8 lines 52-53 and Fig 38); and at least one electrode (96) arranged along the at least partial curve (Fig 38), the at least one ablating electrode being adapted to change curvature along with the at least partial curve along the distal end region of the tubular body (Fig 38).

Regarding claim 2, Kordis discloses the ablation catheter of claim 1 wherein the at least one electrode comprises at least one electrode strand (Fig 41) arranged in a flexible configuration (column 6 lines 3-4 and column 12 lines 54-56).

Regarding claim 3, Kordis discloses the ablation catheter of claim 2 wherein the at least one electrode comprises at least one flexible and resilient (column 6 lines 9-11) electrode strand (elements 22, 92, and 96).

Regarding claim 4, Kordis discloses the ablation catheter of claim 3 wherein the at least one flexible and resilient electrode strand is comprised, at least partially, of material selected from the group consisting of platinum (column 12 line 20), gold, stainless steel (column 6 line 64), and composite of conductive polymer metal.

Regarding claim 5, Kordis discloses the ablation catheter of claim 2 wherein the at least one electrode strand defines a saw tooth pattern (Fig 35).

Regarding claim 6, Kordis discloses the ablation catheter of claim 2 wherein the at least partial curve defines an outside radius (inherent with a curved tube), and wherein the at least one electrode strand defines a first end region (E1) and a second end region (E8), and wherein the first end region is coupled with a point along the outside radius of the at least partial curve and wherein the second end region is coupled with a second point along the outside radius of the at least partial curve along the distal end region of the tubular body (Figs 52, 41, and 38).

Regarding claim 7, Kordis discloses the ablation catheter of claim 2 wherein the at least one electrode strand (22, 92, and 96) further defines an elastically deformable strand (column 6 lines 9-10 and column 12 lines 54-56).

Regarding claim 8, Kordis discloses the ablation catheter of claim 7 wherein the at least one elastically deformable strand (22, 92, and 96) is biasedly coupled with the at least partial curve along the distal end region of the tubular body (Fig 41, element 22 provides the curvature).

Regarding claim 9, Kordis discloses the ablation catheter of claim 8 wherein the biased connection of the at least one elastically deformable strand (22, 92, and 96) is

biased to change the curvature of the at least partial curve along the distal end region of the tubular body (Figs 1A and 2).

Regarding claim 10, Kordis discloses the ablation catheter of claim 1 wherein the at least partial curve along the distal end region of the tubular body defines a closed loop (Fig 2, the loop in a closed configuration), as broadly claimed.

Regarding claim 11, Kordis discloses the ablation catheter of claim 1 wherein the at least partial curve along the distal end region of the tubular body defines an open loop (Fig 1A, the loop in an open configuration), as broadly claimed.

Regarding claim 12, Kordis discloses the ablation catheter of claim 2 wherein the at least one electrode includes at least one electrode strand interlaced along the at least partial curve along the distal end region of the tubular body (Fig 41).

Regarding claim 13, Kordis discloses the ablation catheter of claim 12 wherein the at least partial curve defines an outside surface, and wherein the at least one electrode strand is interlaced along the outside surface (Fig 41).

Regarding claim 14, Kordis discloses the ablation catheter of claim 12 wherein the at least partial curve defines an inside surface, and wherein the at least one electrode strand is interlaced along the inside surface (Fig 38 at the base of the loop structure).

Regarding claim 15, Kordis discloses the ablation catheter of claim 13 wherein the at least one electrode strand is interlaced along the outside circumference such that the electrode strand is intermittently exposed along the outside circumference (Figs 38-41).

Regarding claim 16, Kordis discloses the ablation catheter of claim 15 wherein: the at least one electrode strand defines a first length of the at least one strand (E1-E4), the first length defining intermittently exposed sections of the at least one electrode strand (Fig 52); and the at least one electrode strand further defines a second length of the at least one strand (E5-E8), the second length defining intermittently exposed sections of the at least one electrode strand (Fig 52).

Regarding claim 17, Kordis discloses the ablation catheter of claim 16 wherein the first length of the at least one strand and the second length of the at least one strand cooperate to define a generally continuously exposed segment of the at least one strand (E1-E8, Fig 52).

Regarding claim 18, Kordis discloses the ablation catheter of claim 17 wherein the generally continuously exposed segment of the at least one strand is coupled (28) with a power supply and adapted to be energized thereby during an ablation procedure (column 1 lines 9-11). The catheter inherently must be coupled with a power supply in order to function as an ablation tool.

Regarding claim 19, Kordis discloses an ablation catheter comprising: a tubular shaft (98) defining a distal end region (Fig 38), the tubular shaft further defining at least a partial curve along the distal end region (Fig 38); and flexible electrode means for conveying ablation energy to a target tissue (96 and 92), the flexible electrode means arranged along the at least partial curve along the distal end region of the tubular shaft (Fig 38).

Regarding claim 20, Kordis discloses the ablation catheter of claim 19 wherein the means for conveying ablation energy to a target tissue comprises at least one electrode strand (22, 92, and 96) arranged in a flexible configuration (column 6 lines 3-4 and column 12 lines 54-56) along some portion of the at least partial curve along the distal end region of the tubular shaft (Fig 38).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 17-18 are rejected under 35 U.S.C. 102(b) as anticipated by Kordis (as applied above) or, in the alternative, under 35 U.S.C. 103(a) as obvious over Kordis.

Regarding claim 17, Kordis discloses the ablation catheter of claim 16, as described above, wherein the first length of the at least one strand and the second

length of the at least one strand cooperate to define a generally continuously exposed segment of the at least one strand (as described above). Furthermore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Kordis by increasing the length of the electrodes E1-E8 and decreasing the space between these electrodes, thereby creating an even more generally continuously exposed segment, in order to expose a larger area of the electrodes and ablate more tissue at one time.

Regarding claim 18, Kordis discloses the ablation catheter of claim 17 wherein the generally continuously exposed segment of the at least one strand is coupled with a power supply and adapted to be energized thereby during an ablation procedure (as described above). Furthermore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have coupled the electrode strand with a power supply in order to perform the desired function of the apparatus and ablate tissue.

Response to Arguments

Applicant's arguments filed 14 May 2007 have been fully considered but they are not persuasive.

Regarding independent claims 1 and 19, Applicant argues that the electrode of Kordis is not an ablating electrode. Examiner takes the position that the electrode disclosed by Kordis is fully capable of performing ablation. Furthermore, a recitation of the intended use of the claimed invention must result in a structural difference between

the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

Regarding claims 3 and 7-8, Applicant argues that the flexible and resilient spline (elements 22, 92, and 96) as defined by Kordis do not read on the "at least one flexible and resilient electrode strand" as claimed in claim 3, and similarly in claims 7-9. Claim 3 recites, "wherein the at least one electrode comprises at least one flexible and resilient electrode strand." Examiner has given the term "electrode strand" its broadest reasonable meaning. Examiner has interpreted "electrode strand" to be a strand which supports or is associated with electrodes. Therefore, Kordis anticipates the catheter of claims 3 and 7-9.

Regarding claim 5, Applicant argues that "Figure 35 of Kordis would represent an extremely dull saw," and therefore Kordis does not disclose a saw tooth pattern. Examiner agrees that the pattern shown in Applicant's Figure 13 is more similar to the cutting edge of a saw than the pattern shown in Figure 35 of Kordis; however, Kordis does show a pattern similar to the cutting edge of a saw. Examiner maintains that Kordis discloses a saw tooth pattern, having a zigzag profile, similar to that of the cutting edge of a saw.

Regarding claim 14, the "inside surface" referred to by Examiner is at the base of the loop. Upon carefully reviewing Figure 38, one can see that between the linear section of the structure and the top section of the structure, each leg of the structure forms a shape similar to an S-shape. The "inside surface" cited by the Examiner is

where the leg turns back on itself (near the label of Step 1 in Figure 38) and defines an inside surface. At this location, it can be seen that an electrode strand is clearly interlaced along the inside surface.

Regarding claim 17, Applicant argues that Kordis teaches away from spacing the electrodes more closely together. Although Kordis teaches that the electrodes must be spaced apart (as indicated by Applicant), Kordis does not teach away from spacing the electrodes more closely together. Kordis only teaches away from having the electrodes come into contact with one another.

Regarding claim 18, Applicant argues that Kordis does not teach an ablating electrode. Kordis does not teach away from ablation. The structure disclosed by Kordis reads on the claimed invention, as described above, and is capable of being adapted to be energized during an ablation procedure.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jacqueline Papapietro whose telephone number is (571) 272-1546. The examiner can normally be reached on M-F 9am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Linda Dvorak can be reached on (571) 272-4764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JMP

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